

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/10973

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|---|---|--|---|---|
| A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12N15/55 C12N9/16 A61K38/43 A61K31/70 A61K39/395 C07K16/40 C12Q1/42 C12Q1/68 A01K67/027 | | | | |
| According to International Patent Classification (IPC) or to both national classification and IPC | | | | |
| B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 C12N A61K C07K C12Q A01K | | | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | | | |
| Electronic data base consulted during the international search (name of data base and, where practical, search terms used) | | | | |
| SEQUENCE SEARCH | | | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | | | |
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. | | |
| X | CAFFREY J.J. ET AL.: "The human and rat forms of multiple inositol polyphosphate phosphatase: functional homology with a histidine acid phosphatase up-regulated during endochondral ossification" FEBS LETTERS, vol. 442, no. 1, 8 January 1999 (1999-01-08), pages 99-104, XP004259012 ISSN: 0014-5793 the whole document page 103 --- -/-- | 1-36 | | |
| <input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex. | | | | |
| * Special categories of cited documents: <table border="0"> <tr> <td> *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed </td> <td> *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family </td> </tr> </table> | | | *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed | *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family |
| *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed | *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family | | | |
| Date of the actual completion of the international search | | Date of mailing of the international search report | | |
| 9 March 2004 | | 16/03/2004 | | |
| Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 | | Authorized officer Macchia, G | | |

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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| X | WO 00 36102 A (GENENTECH INC. (US) BOTSTEIN DESNOYERS FERRARA FONG GAO GODDARD GURNEY) 22 June 2000 (2000-06-22) cited in the application page 5, line 23-27 page 19, line 9 -page 21, line 11 page 35, line 36 -page 36, line 2; figures 11,12 page 71, line 10-15 page 82 page 85 -page 98 | 1-21, 23-36 |
| X | WO 00 53758 A (GENENTECH, INC. (US); ASHKENAZI; BAKER; GODDARD; GURNEY; HEBERT HENZEL) 14 September 2000 (2000-09-14) page 11 -page 12; figures 85,86 page 162 -page 174; claims | 1-36 |
| X | WO 00 73452 A (GENENTECH INC (US) ASHKENAZI BAKER CHAN GODDARD GODOWSKI GURNEY HEBERT) 7 December 2000 (2000-12-07) page 13; figures 55,56 page 125 -page 138; claims | 1-36 |
| X | WO 02 00690 A (GENENTECH, INC. (US); BAKER FERRARA GERBER GERRITSEN GODDARD GODOWSKI) 3 January 2002 (2002-01-03) page 30; figures 249,250 page 166 -page 168; claims 20,21 | 1-36 |

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1, 16, 17, 23, 25-27, 33, 34 all in part
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1, 16, 17, 23, 25-27, 33, 34 all in part

Present claims 1 and 34 relate to a composition comprising a product defined by reference to a desirable characteristic or property, namely that it is a modulator/effector of the nucleic acid molecule/protein concerned in present application.

Present claims 16-17 relate to uses of a product defined by reference to a desirable characteristic or property, namely that it is a modulator/effector of the nucleic acid molecule/protein concerned in present application.

Present claims 25-27 relate to a method/use involving an agent defined by reference to a desirable characteristic or property, namely that it is a modulator/effector of the nucleic acid molecule/protein concerned in present application and further defined in terms of a method for its screening.

Present claim 33 relates to a kit comprising a product defined by reference to a desirable characteristic or property, namely that it is a modulator/effector of the nucleic acid molecule/protein concerned in present application.

The claims cover all products having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products.

In fact, on page 8 antibodies, biologically active nucleic acids, such as antisense molecules, RNAi molecules, or ribozymes, aptamers, peptides or low-molecular weight organic compounds recognizing said polynucleotides or polypeptides are described among said modulators/effectors. However, no specific low-molecular weight organic compounds are disclosed in present application. Analogously, no biologically active nucleic acids or peptides other than the ones related to the molecules concerned in present application are (at last in part) disclosed.

In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the product by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible.

Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to compositions, uses, kits comprising/involving antibodies, nucleic acid molecules and peptides related to the ones

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

concerned in present application.

Present claim 23 relates to a method involving a product defined by reference to a desirable characteristic or property, namely that it is a binding target/agent of the polypeptide concerned in present application.

Present claims 25-27 relate to a method/use involving said product defined by reference to a desirable characteristic or property, namely that it is a binding target/agent of the polypeptide concerned in present application and further defined in terms of a method for its screening.

The claims covers all products having this characteristic or property, whereas the application provides neither support within the meaning of Article 6 PCT nor disclosure within the meaning of Article 5 PCT for any specific product.

In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the product by reference to a result to be achieved and by reference to a method of screening. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible.

Consequently, the search has been carried out only by means of keywords related to the alleged binding properties of the product concerned.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

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